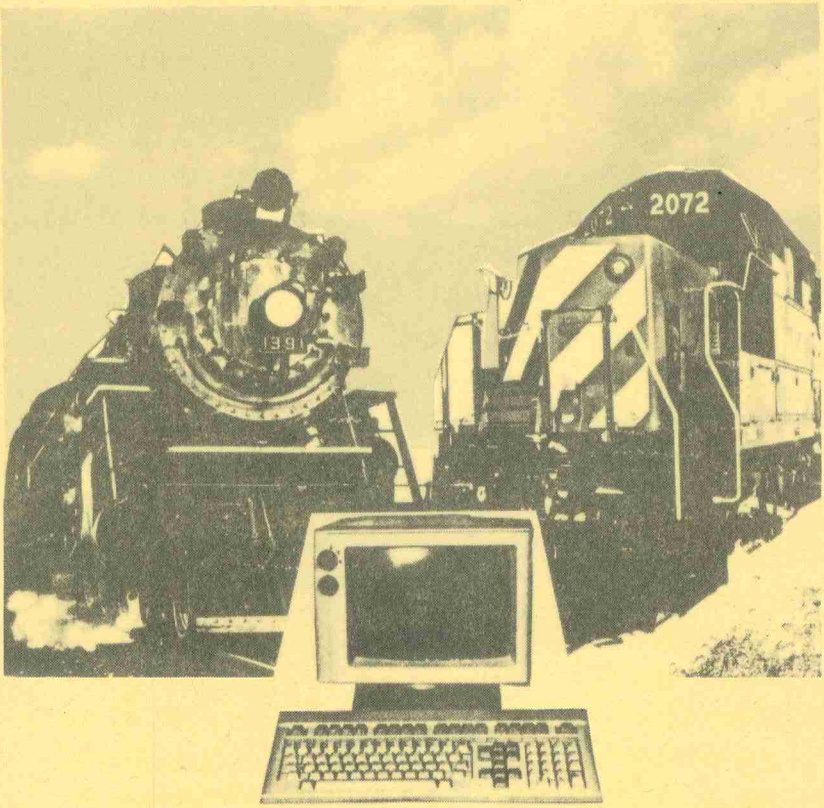
RAILROADS AND PRODUCTIVITY:
A Matter of Survival



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INTRODUCTION

This is about productivity and why railroads must improve its rate of growth. It is also about resource costs – which affect productivity – and why railroads must better control them.

Productivity – as that term is most often used – describes physical output per unit of labor input. That definition is incomplete, because productivity should consider the effectiveness with which all resources – managers, machines and supplies, as well as workers – are used. Economists call this more meaningful measurement "total-factor productivity."

If total-factor productivity – the effectiveness with which all resources are used – increases at a rate greater than the cost of those resources, unit costs of the service produced decline. If unit costs decline more rapidly than the unit costs of competitors, business will improve – creating opportunities for new employees and improving the firm's capacity to pay higher wages and benefits.

Conversely, if resource costs rise more rapidly than the effectiveness with which those resources are used, unit costs of the service produced escalate. If unit costs increase faster than the unit costs of competitors, the competitors achieve a cost advantage. In such cases, the increases in unit costs are root causes of employee layoffs and business bankruptcies.

In recent years, railroads have been using their resources more effectively than ever before. But the costs of the railroads' most important resource – labor – have been increasing at an even more rapid pace, causing the railroads' unit costs to rise faster than general inflation.

Worse, the effectiveness with which rail competitors use resources has increased faster than their costs. As a result, motor carriers, for example, have reduced their unit costs, allowing them to gain market and revenue share at the expense of railroads and their workers. And given recent increases in allowable truck sizes and weights – without sufficient increases in heavy-truck user charges to match documented cost responsibility – motor carrier unit costs can be expected to fall even further.

If railroads do not become more competitive – that is, reduce their unit costs – rail market and revenue share will fall further, rail facilities will not be renewed, the quality and quantity of remaining rail service will deteriorate, and rail jobs will be fewer and less secure.

THE RAILROADS AND PRODUCTIVITY

Since 1967, output per person-hour in the railroad industry has increased by 26.5 percent. Mostly, it has been because of capital infusion – greater capital investment per worker which allowed sharp reductions in the work force. Capital spending – some $60 billion over the past five years for upgrading and maintaining facilities and equipment[1] – has made possible larger-capacity freight cars, more powerful and more fuel-efficient locomotives, computerized classification yards, and faster, more consistent freight service.

Indeed, the effectiveness with which managers, workers, machines and supplies are used in the railroad industry has improved significantly in recent years. More revenue tons are being carried per car-mile, per train-mile, per employee-hour and per gallon of fuel.

If the way society consumes resources were not important, coal might still be carried in buckets on men's shoulders. Clearly, today's 100-car, 10,000-ton unit coal train, powered by four 3,000-horsepower diesel-electric locomotives, with a four-man crew, is a measurable improvement over yesterday's five 2,000-horsepower steam engines, with 25 crewmembers, pulling five separate trains of 2,000 tons each.

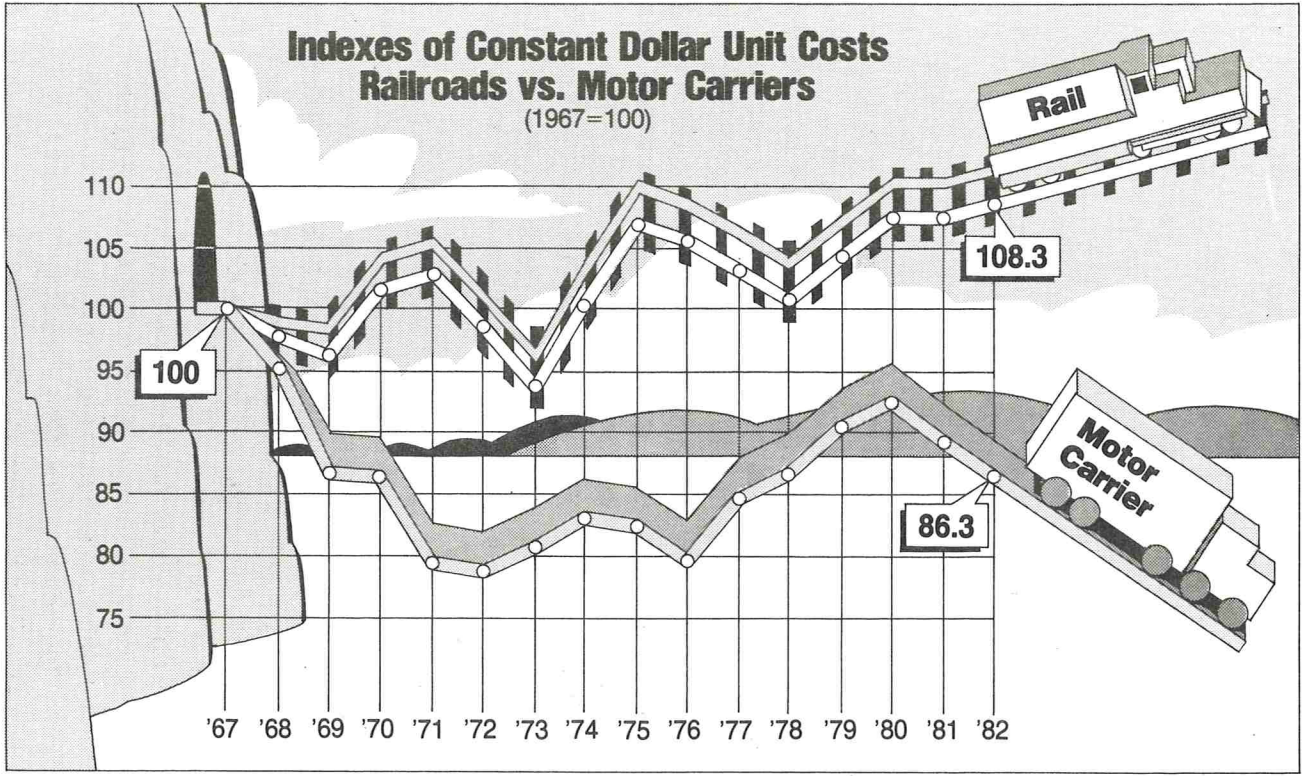
But as mentioned previously, the cost of resources is equally important. Investment in greater capacity freight cars and more powerful, fuel-efficient locomotives was made because on a per-ton carrying capacity basis, or per-horsepower basis, this new equipment is more cost effective than the equipment it replaced. All things being equal, such investment should have lowered the railroads' unit costs, and made railroads more competitive in all markets.

All things have not been equal. While the effectiveness with which railroads allocate resources has been improving, one resource cost – labor – has been climbing at such a furious pace as to largely negate the benefits of more effective resource allocation. And labor costs comprise almost half of all railroad costs.[2]

The problem is best illustrated by a comparison of constant-dollar (inflation adjusted) unit costs. This is where the competitive game is played, because it is units of transportation that shippers buy – and the prices of these units are largely dependent upon their costs.

Since 1967, while railroad constant-dollar unit costs increased by 8.3 percent, constant-dollar unit costs for motor carriers decreased by 13.7 percent.[3] This competitive disadvantage closed railroads out of many markets and reduced their profit margins in others.

Equally troubling is the fact that the benefits of capital infusion (made on the expectation of improved total-factor productivity) have been insufficient to overcome increased labor costs. In an effort to reverse this and lower unit costs, railroads have accelerated the substitution of machines for labor. Clearly, neither the magnitude of the labor force reduction – almost 35 percent over the past four years – nor the level of capital spending can continue unabated. This is why it is essential that labor costs be better controlled – so that railroads can run with the leaders of the transportation pack.


Indexes of Constant Dollar Unit Costs
Railroads vs. Motor Carriers
(1967=100)
Rail
Motor Carrier
110
105
100
95
90
85
80
75
100
108.3
86.3
'67 '68 '69 '70 '71 '72 '73 '74 '75 '76 '77 '78 '79 '80 '81 '82

THE CHALLENGE FACING RAILROADS

In a static economy, railroads might be able to ignore their competitors and concentrate on heavy, bulk commodities – which traditionally have moved by rail. But our economy is changing rapidly; heavy industry is growing more slowly than in the past; and regulatory reform is removing the last vestiges of market protections any mode may previously have enjoyed.

Futurist John Naisbitt says America must accept the decline of some of its smokestack industries – and the outright demise of others.[4] The U.S. is shifting from a production-oriented economy to a service-oriented economy.

"Over the past century," observes Harvard's John Meyer, "smokestack industries have developed a symbiotic relationship with the railroads."[5] Yet, according to Data Resources, Inc., America in future years can expect a sharp reduction in the rate of growth of industries which have been traditional rail customers.

Unless railroads optimize their resource allocation, and better control their labor costs, their traditional lines of business may be insufficient to support even a spartan network of mainlines.

Government, of course, could step in with rail subsidies, but that means a massive new burden on general taxpayers – and government operators typically are less responsive to market forces than to political expediency. This can be confirmed by even a casual examination of the monumentally unproductive practices forced upon many nationalized railroads of the world.

Additionally, government policy is no longer directed toward subsidizing money-losing rail operations or providing lifetime wage protection to rail employees. This is evidenced by the liquidation of the Chicago, Rock Island and Pacific Railroad (Rock Island), the substantial pruning of the Chicago, Milwaukee, St. Paul and Pacific Railroad

(Milwaukee Road), and Congressional reduction of Conrail's employee protective obligations.[6]

The greatest challenge facing railroads today is to survive and prosper in an environment of lower economic growth and more intense truck and barge competition – the extent of both to be explained on the following pages. The future of railroads – and railroad jobs – in such a changed economic environment is highly dependent upon a reduction in unit costs.

THE TRADITIONAL MARKETS PROBLEM

For many years, railroads have depended heavily upon coal, grain and other farm products, chemicals, food products, non-metallic minerals, lumber and metallic ores. These commodities represent 81 percent of rail originated tonnage.[7] In terms of volume, coal is the railroads' most important commodity, representing better than 38 percent of originated tonnage.[8]

While the volume of rail-hauled coal is expected to remain strong, forecasts now hold hope only for modest increases in coal production; and the absolute tonnage of many other commodities which have traditionally moved by rail is shrinking. Domestic and international events are part of the reason.

As America and other nations cut their dependence upon foreign oil, many electric utilities shifted to coal as a fuel. In the U.S., coal-fired boilers now generate 53 percent of our electricity.[9] But energy conservation has accompanied the shift to coal.

After four decades of 7 percent annual growth in U.S. electricity consumption,[10] the growth has flattened. In 1982, for the first time, we used less electricity than during the previous year.[11] Electricity growth-rate estimates for the next decade are between 2 and 4 percent annually.[12] Thus, earlier projections of vastly increased demands for steam coal – such as those predicting a doubling of coal production by 1990 – have given way to more sober annual growth rates of 2 to 2.6 percent.[13] These rates will be roughly half of what was experienced between 1974 and 1980.

More coal is being burned at the mine-mouth, eliminating the need for transportation. Since 1978, mine-mouth electricity generation has increased at more than twice the rate of coal production – 59 percent versus less than 25 percent.[14]

The prospects for significant growth rates in export coal are bleak. There occurred in 1981 a sudden and unexpected surge in demand for U.S. coal – when Australia and Poland were beset by labor unrest and South Africa was out of

political favor. But the surge was temporary. The growing strength of the U.S. dollar has combined with the resurgence of world-wide competition and more stable oil prices to cause U.S. coal exports to fall from 105 million tons in 1982 to under 77 million tons today.[15]

Recession, foreign competition, the increased value of the U.S. dollar and the availability of steel substitutes have reduced demand for U.S.-produced steel – along with the iron ore and coking coal necessary for its production.

Foreign-produced steel is capturing a greater share of a shrinking market. In 1950, imported steel took 2.3 percent of the U.S. market. By March 1984, it had risen to 24 percent.[16] Meanwhile, the demand for steel in the U.S. and other free-world industrialized nations has declined steadily since 1973.[17] Not only is the U.S. share getting smaller, but so is the total pie.

Automobile producers – both foreign and domestic – are shifting from steel to light-weight plastics and glass. DuPont recently unveiled a "super-tough" polyester resin as a "light-weight replacement" for metal.[18] The quest for improved fuel efficiency has caused the average weight of a domestically produced automobile to decline by almost 40 percent since 1975.[19] Less steel also is being used in commercial building construction – and even in rail cars.

Lingering world-wide uncertainties about U.S. reliability as an agricultural trading partner, in the wake of the 1978 Soviet grain embargo; Communist China's cancellation of grain purchases, in retaliation for U.S. restrictions on Chinese textile imports; and the strength of the U.S. dollar all have combined to dampen grain exports.

In less than a decade, the U.S. share of the world wheat market has fallen from 45 percent to 36 percent, and our share of the world corn market has plummeted from 72 percent to 60 percent.[20] Even changing consumer tastes are harming grain markets – with the demand for malting barley falling as more beer drinkers switch to light beer.[21] Government programs have encouraged farmers to reduce output – with corn production alone down 25 percent this year.[22]

During the decade of the 70s, U.S. agricultural exports grew at double-digit rates.[23] The Department of Agriculture now projects a growth rate of only 3 percent annually over the next 10 years.[24]

The home building industry has been affected by high interest rates and energy conservation, combining to reduce residential home sales and lumber shipments. The square footage of new homes has been reduced 7.5 percent since 1978, and the size of a so-called "2x4" has decreased by 11 percent.[25]

The U.S. economy just is not growing in areas which traditionally turn to rail. Clearly, railroads must look to other markets for growth – and survival. But these markets will succumb to rail diversion only if the railroads make their unit costs more competitive.

THE NATURE OF TRUCK AND BARGE COMPETITION

Railroads virtually have been shut out from participating in the growth of the U.S. economy. While U.S. freight tonnage increased by 41.5 percent over the past 23 years,[26] railroad tonnage increased by only 5.8 percent.[27] And since 1970, the freight railroads captured only 9.2 percent of the net growth in intercity freight revenues.[28]

Prior to 1935, trucking was not a serious competitive threat to railroads. This changed as highway transport matured and as massive public investment in paved roadways duplicated the railroad network.

In 1925, railroads hauled 80 percent of all intercity freight.[29] By the mid-1970s, the railroads' share of intercity freight had shrunk to less than 37 percent.[30] While the rails lost more than half of their intercity freight, the truck share grew from 3 to 23 percent, and the barge share from 1 to 13 percent.[31] (Oil pipelines, Great Lakes shipping and air freight account for the balance.)

Over the past three decades, government promotion of intercity highways, and the operation of longer, wider and heavier trucks, coupled with inadequate user charges, helped provide motor carriers with reductions in unit costs.

The Motor Carrier Act of 1980 virtually eliminated regulatory restrictions for trucking. Since then, according to the Interstate Commerce Commission, the number of certificated motor carriers – mostly non-union and paying lower wages – has increased by 74 percent.

Rail pricing officers are being buffeted by two forces.

First, improved truck productivity – much of it because of rights-of-way subsidies and lower trucking wages – enhances the motor carrier's price competitiveness, exerting downward pressure on rail freight rates.

Second, sharp increases in rail labor costs – well beyond improvements in output per person-hour – are exerting upward pressure on rail freight rates, many of which already are only marginally competitive.

Railroads also face problems in attempting to compete with barge operators, whose ton-miles have grown by 88 percent since 1965 – versus an 18 percent increase in rail ton-miles during the same period.[32] The reasons are similar.

Massive taxpayer subsidies – of at least $15 billion since World War II[33] – have provided barge operators with a virtually free right-of-way, allowing them to underprice railroads in many markets.

Additionally, some 93 percent of barge-hauled freight never has been subject to economic regulation, permitting barge operators to more rapidly adjust – based upon changing market conditions – their rate and service levels.[34]

Finally, barge labor costs for non-union crews are 10 percent or more below rail labor costs.[35]

And it should not be overlooked that while railroads pay some $200 million per year in property taxes on their privately owned rights-of-way,[36] truck and barge operators escape such taxes as their rights-of-way are publicly owned.

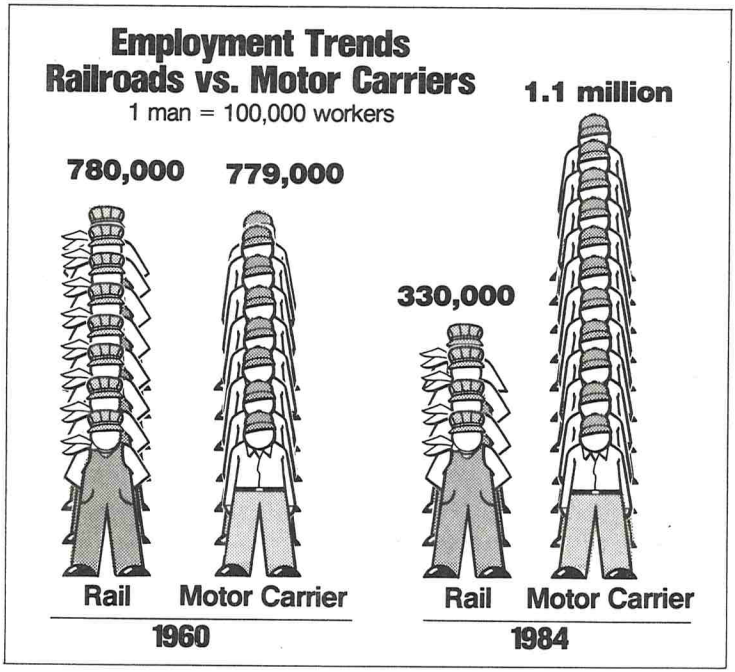
But even if railroads are fully successful in establishing a more even-handed national transportation policy, they must continue to improve their resource allocation and better control labor costs. There are many sharp knives being wielded in today's highly competitive transportation arena – with the sharpest blades in the hands of non-union truckers themselves struggling to survive.

RAILROADS HAVE NOT BEEN STANDING STILL

Whether output be ton-miles, tons of coal or ounces of medicine, each requires varying amounts of resource inputs. Ignoring the most effective allocation – and the price paid for each – invites loss of one's market to a more attentive competitor.

As the cost of rail labor has escalated, railroads have substituted machines or other forms of capital for labor in an attempt to remain competitive. It is no different than a railroad brakeman investing in a mechanical sprayer to paint his house on a two-day holiday and avoid the cost of hiring a painting crew.

In 1947, Class I railroads employed 1.4 million workers. In 1980, it was 480,000. Today, the figure stands at 330,000[37] – down 150,000, or more than 30 percent, in just four years.



Computers keep track of freight cars, match empty equipment with the closest loads, rush cars through classification yards, dispatch trains, and prepare freight bills.

Computer-assisted devices alert engineers to dragging equipment, shifted loads and imminent wheel and axle failures more effectively than individuals in a caboose. Centralized traffic control – which increases the capacity of mainline track up to 80 percent – now is installed on some 54,000 miles of track.[38] And computers in locomotives help engineers in safety procedures and fuel conservation.

Improved steel alloys make track stronger and safer. Alternative fuels research seeks energy cost reductions.

Design changes are proposed to reduce equipment tare weight – by eliminating couplers and draft-gear, substituting lighter-weight materials and reducing the number of wheels and axles. New aerodynamic designs seek to cut wind resistance. New means of train propulsion are being explored.

A self-steering wheel-axle assembly, which doesn't sideslip around curves, build up friction or wear down steel surfaces, is being tested – as is the effect of track lubricants to end slideslip of existing wheel-axle assemblies. The use of stackable containers on a new generation of multi-platform, lighter-weight flat cars is increasing.

Today, 46 percent of the locomotive fleet has been added since 1970, with some 25 percent of the locomotives less than seven years old.[39] Average locomotive horsepower has increased more than 20 percent since 1970, and average fuel efficiency is up some 30 percent since 1973.[40] Over the past decade, average freight car carrying capacity has risen by 20 percent.[41]

Railroads have been making consistent and significant capital investments in an effort to reduce unit costs, and become more competitive with motor carrier and barge operators. But those efforts have been insufficient to offset the effects of increasing labor costs.

THE HIGH COST OF RAIL LABOR

As mentioned previously, the railroads' output per-person hour has increased by 26.5 percent since 1967.

Mostly, it has been because of capital investment in improved facilities and equipment, the exiting from unprofitable markets, and the paring of excess plant – all producing sharp reductions in the work force.

But these actions have been insufficient to reduce unit costs and put railroads in a more competitive postion vis-a-vis truck and barge operators. Equally troubling is the fact that new capital investment, shedding of unprofitable business, and rationalization of plant cannot continue at their recent high levels indefinitely. The law of diminishing marginal returns precludes it. It is thus essential that progress be made in controlling resource costs – and here is where labor costs are a clear and present danger to the railroads' competitive posture.

Consider:

- The average annual compensation of rail workers today is greater than that of 97.4 percent of the domestic work force.[42]

- From 1972 through 1983, railroad labor compensation increased by more than 204 percent – versus only a 137 percent increase in the consumer price index.[43]

- During 1983, the $40,972 average annual compensation ($31,958 in wages and $9,014 in fringes) paid railroad employees was 53 percent greater than that earned in the trucking industry.[44]

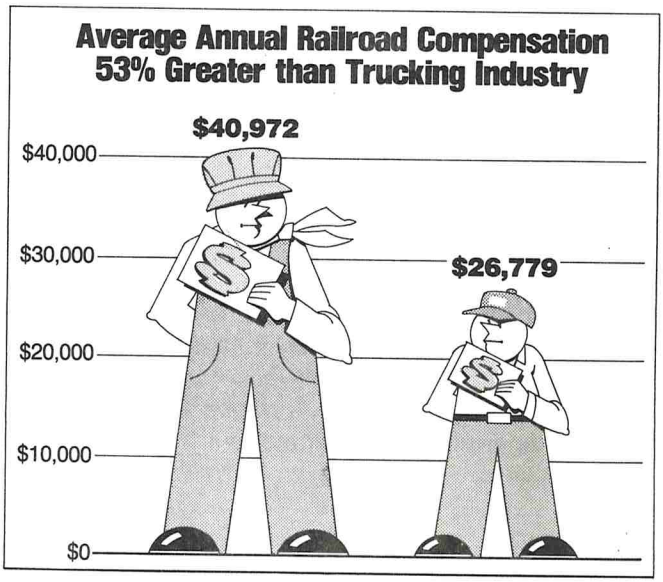
- Since 1980, annual rail compensation increased by more than $10,000 – while annual motor carrier compensation increased by less than $5,000.[45] And from March 1981 to April 1984, rail wages rose by 26.7 percent, while wages in the trucking industry increased by 7.9 percent.[46]

●Fully 75 percent of the increase in the Rail Cost Adjustment Factor since October 1980 (an index of railroad inflation used, under provisions of the Staggers Rail Act, to adjust rail rates) is the result of increases in employee compensation.[47]

According to an independent consultant's study, railroads now must average 62 loaded piggyback trailers – or 48 loaded boxcars – per train-mile just to equal the labor-dollar productivity of a non-union motor carrier.[48] This is up from 38 loaded piggyback trailers per train-mile in 1971.

Contributing to high labor costs are pay standards and work rules imposed many years ago – during an era of vastly different economic circumstances.

For example, when trains were powered by steam locomotives . . . that had to be periodically stopped and watered . . . causing average train speeds to be 12.5 miles per hour . . . or 100 miles in eight-hours . . . employees assigned to train service were paid upon the basis of a 100-mile day. Today, some trains travel at 70 miles per hour, yet the crew members continue to be paid based upon the 100-mile day – allowing them to be paid the equivalent of two, three and



even five days' pay for an eight-hour shift. If 100 miles aren't traversed in an eight-hour period, the crew receives minimum pay as if they were.

As another example, before diesels . . . when firemen had to shovel coal to make steam . . . and fill the water tank . . . and reload the tender with coal . . . and the engineer had to crawl tediously over the locomotive to lubricate every exposed fitting . . . taking over a new locomotive was an onerous task. Today, when crews change locomotives they essentially turn a key and kick a starter. Yet, arbitraries – extra pay of as much as $40 – are paid for the task.

Additionally, when a brakeman must climb down from the locomotive or caboose and couple or uncouple an air hose, he receives additional pay – even though the work is performed as part of the normal work day.

And road crews which operate intercity trains often are prevented from picking up and dropping cars at yards and factories along the route – often necessitating sending yard crews out to perform the work. Similarly, yard crews sometimes are prevented from picking up or dropping cars at nearby factories outside yard limits.

Also, cabooses, which no longer are necessary for sleeping, eating, paper work or safety, continue to be required on many trains.

And the number of crew members required per train contributes to the railroads' inability to compete with truckers – where one driver now hauls two- or three-trailer truck "trains" for distances of 500 miles and more a day.

Rail labor has been cooperating in some experiments designed to show that reduced crew sizes, relaxation of rules restrictions and elimination of cabooses can, indeed, allow establishment of rates which will enable the railroads to capture a market. Unfortunately, these experiments are the exception, not the rule. They need to be translated into more universal practices.

If rail labor compensation in 1982 had mirrored lower motor carrier compensation, 50,000 more railroad jobs could have been created.[49] This is because those lower labor costs

could have been translated into lower freight rates which would have increased rail freight ton miles by 118 billion, or more than 14 percent. But while outdated pay standards and work-rules restrictions caused rail labor costs to rise – and rail employment to decline precipitously – the reduction in motor carrier unit costs increased motor carrier employment by some 40 percent since 1960.[50]

While rail labor costs continue to increase, a three-year contract signed between motor carrier management and the Teamsters in 1982 provided for no general wage increases, lower wages for new employees, reduction in cost-of-living adjustments, and significant work-rules improvements.[51] Furthermore, according to press reports, collective bargaining in virtually all other industries over the past two years has been characterized by concessions and work-rules relaxation.

Non-competitive rail labor costs are dissolving the benefits of more effective resource allocation, and making railroads less competitive for a slice of a slower-growing freight pie.

FUTURE DIRECTIONS

Following a four-day national railroad strike in 1982, two study commissions recommended by presidential emergency boards considered the matter of railroad compensation and work rules.

Spokesmen for several railroads made presentations illustrating their inability to compete with other modes.

Conrail's representative explained how that railroad was unable to bid for traffic representing 5,070 cars annually – amounting to $1.6 million in revenue. Existing work rules prevented a road crew from originating the train directly at the shipper's plant, prohibiting overnight service at a competitive rate. The business now moves by truck.[52]

Burlington Northern's (BN) spokesman said that because of restrictive work rules and high labor costs, BN currently is unable to compete with motor carriers in markets of less than 700 miles. If labor costs continue to escalate as they have over the past 36 months, said BN, it will find itself unable to compete in markets of less than 850 miles. Yet, if a more rational basis of pay than the 100-mile day can be established, and if work rules can be amended to permit greater use of two-man crews, and if cabooses can be eliminated, BN can become truck-competitive in markets of 550 miles.[53]

Since, according to BN, 41 percent of truck movements in the West are between 550 and 850 miles, a huge new market potential presents itself – which could represent many thousands of new railroad jobs.

General Motors and Ford pared their rail business by 3 percentage points recently – in favor of trucks – because truckers could do in under an hour what it took railroads almost a day to accomplish.[54]

The study commissions, hearing from railroads, rail labor and shippers, were headed by neutral Arthur Van Wart, a former union official, later rail official and for many years an arbitrator, who was chosen for the task both by labor and management. In his report, Mr. Van Wart recommended a

series of wage and work-rules changes which, he said, are necessary to prevent a greater loss of both business and jobs in the rail industry.

Some of these recommended changes are:

- Rates of pay for new employees to be established at least 20 percent below those of present employees. Entry rates of pay shall be 70 percent of the new rate established, to be increased 6 percent annually until the full adjusted rate is achieved.
- The mileage/speed basis of pay for all employees shall be converted on a phased-in basis to at least 20 miles per hour (from the existing 12.5 miles per hour) and a method to provide for further accommodations to future speed increases shall be established.
- Eliminate all arbitraries and special allowances for new workers. Freeze existing arbitraries and special allowances for current employees so that future wage increases or cost-of-living adjustments will not be applied.
- Mileage rates for miles run in excess of 100 shall be frozen.
- Certain arbitraries shall be reduced or eliminated over a three-year period.
- Road crews would be required to handle their own switches, make multiple setouts and multiple pickups within the same switching limits; and spot and uncouple cars within switching limits.
- Management would have the right to make other operational changes irrespective of pre-existing road/yard restrictions in response to the needs of shippers if the purpose is to preserve specific and imminently endangered traffic, to improve transit time, to accommodate a shipper's request for particularized handling, or to capture new traffic.
- Certain functions now restricted to road crews could be handled by yard crews, such as relieving road crews in disabled trains or tied up under the federal Hours of Service Law, or in servicing branch lines.

Additionally, the presidential emergency boards recommended elimination of cabooses in up to 25 percent of through-freight operations – which the railroads believe needs to be extended even further.

As Mr. Van Wart explained in making his recommendations, the dynamics of the marketplace "now demand that labor and management alike look at all aspects which directly or indirectly influence the carriers' ability to compete with the trucking industry and in particular with the non-unionized portion." Indeed, as one non-rail labor leader recently commented, "The only true job security is a job."[55] Or, as *Business Week* observed, "In transportation, it is no longer a question of being 'more productive, make more money,' it is a question of being 'more productive to survive.'"[56]

Clearly, only if labor cooperatively joins with the railroads in a partnership to reduce unit costs can America's freight railroads – their stockholders, managers and workers – hope to survive in an environment of greatly reduced future expectations and greatly increased competitive pressures. Rail management seeks to convince labor that excessive gains in compensation reduce rail employment and market share; that restrictive work rules, in the final analysis, cut employment rather than preserve it.

CONCLUSION

Since 1967, physical output per unit of labor in the railroad industry has increased substantially – mostly because of capital infusion. But while physical output per unit of labor has been increasing, the cost of labor – which constitutes almost half of all railroad costs – has been rising even faster. As a result, railroad unit costs increased.

While railroad unit costs were rising, the unit costs of rail competitors were falling, giving motor carrier and barge operators a competitive advantage over railroads. As a result, railroads have been shut out of the growth of the American economy. And since the economy is expected to grow at a much slower pace in the future – especially in areas which traditionally turn to rail transportation – railroads must regain a competitive edge if they are to survive.

Not only must railroads continue to seek optimum levels of resource allocation, but they also must better control their labor costs – which have been rising at a pace significantly in excess of the rate of inflation.

In an effort to become more competitive, railroads have been investing in improved facilities and equipment, exiting unprofitable markets, and paring excess plant – all causing rail employment to decline almost 35 percent over the past four years. But these efforts have been insufficient to overcome the drag created by rising labor costs. Equally troubling, the substitution of machines and other capital for labor cannot continue at their recent high levels indefinitely.

Contributing to high labor costs are pay standards and work rules imposed many years ago – during an era of vastly different economic circumstances. To make railroads more competitive with trucks and barges – which will mean greater job security – railroads must amend wage and work rules to meet the competitive conditions which exist today.

Study commissions created by presidential emergency boards, following a 1982 railroad strike, made a number of

recommendations in regard to new rates of pay, elimination of arbitraries and greater flexibility in directing the work force. These changes currently are being pursued by the railroads.

Certainly if railroads are to survive in an environment of drastically altered expectations and more intense competition for a larger slice of the freight transportation "pie" . . . if railroads are to meet changing transportation demands . . . if railroads are to compete successfully against trucks and barges . . . if railroads are to contribute to a better quality of life . . . if railroads are to be taxpayers instead of tax consumers . . . and if railroads are to be stable employers . . . then railroads must reduce their unit costs below those of truck and barge competitors.

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7M185